

Timeline: 40 years of OS Milestones

Matt Lake
(Computerworld)

Lordy, lordy, look who's 40! Happy birthday, Unix -- you're looking great for your age. You certainly weren't the first operating system on any platform, but you managed to stride from the minicomputer era into the microcomputer era and the personal computer era, winning fans wherever you went. How many other operating systems can make the same boast? With your birth as our starting point, then, let's look at the biggest desktop OS milestones of the past 40 years.

1969

Unix was brought to life on a spare DEC PDP-7 at AT&T Bell Labs. When AT&T decided to abandon the Multics (Multiplexed Information and Computing Service) operating system on its minicomputers, Ken Thompson and Dennis Ritchie cobbled together an operating system so they could continue to play a space travel game that Thompson had developed. A colleague gave the system a jokey name based on Multics -- UNICS, the Uniplexed Information and Computing Service, which morphed into UNIX or Unix.

1976

Intergalactic Digital Research's maverick brain Gary Kildall creates CP/M, a simple microcomputer operating system for simple microcomputers. It would be the model for command-line DOS variations for two decades.

1977

The godfather of open source is born when the Computer Systems Research Group at UC Berkeley releases a variant on Unix called the Berkeley Software Distribution. BSD will ultimately spawn alternatives to some commercial microcomputer operating systems -- and form the core of at least one major commercial operating system, Mac OS X.

Tandy/Radio Shack introduces a line of affordable home computers, and debuts a family-friendly operating system called TRS-DOS with such Rated-M-for-Mature commands as KILL. Other companies' versions of DOS substitute the less menacing DEL command, for Delete.

1978

Apple DOS 3.1 debuts; it will run the Apple II series of computers for the next five years.

1981

The IBM PC is born, and so are PC-DOS and its alter ego, MS-DOS.

1983

Free software advocate Richard Stallman announces the plan for GNU, a Unix-like operating system that contains no proprietary software. Twenty-six years later, GNU's official kernel, GNU Hurd, will still be incomplete.

1984

During the Super Bowl, Apple airs a commercial in which a female athlete throws a sledgehammer through a huge screen displaying a stern Big Brother-like visage. In the ensuing chaos, people forget that there are more than two computing platforms and concentrate on the epic battle between DOS and the Macintosh.

1985

Microsoft Windows 1.01 retails, at a list price of \$99. It's marketed as a graphical user interface that extends the DOS operating system and lets users run several programs at the same time and freely switch among them. But it's not touted as an actual operating system until a decade later.

The Atari ST appears, running a color graphical user interface: GEM, from Digital Research, the people who brought us CP/M. Like Windows, GEM runs on top of a less attractive, command-line-driven operating system. It becomes a popular graphics and digital music platform, which gives Apple a few ideas to explore later.

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A few months later, the Amiga appears. Its operating system is built on a kernel that handles preemptive multitasking, so it starts with an advantage. The OS also contains a disk operating system, an API layer called Intuition, and a graphical user interface called Workbench. People can choose at will between a command line and the Workbench graphical interface and seem pretty happy about it. It becomes a popular video platform, which gives Apple a few ideas to explore later.

1986

GEOS appears, and gives Apple and Microsoft a few ideas to explore later.

1987

OS/2 first makes news when Microsoft announces its Operating System/2, MS OS/2, developed to harness the power of Intel's 80286 and 80386 microprocessors. As IBM and Microsoft's joint operating agreement falls apart, OS/2 becomes an IBM product, and Microsoft gives its graphical operating system a different name -- Windows NT. Years of confusion ensue as people try to figure out which Windows is actually Windows.

1988

IBM OS/2 1.1 appears in November, with a graphical user interface and no real acknowledgment that one of its parents is Microsoft.

1989

Four years after being "encouraged" to leave Apple and founding NeXT Inc., Steve Jobs takes his career to the next level with the release of NeXTStep. The new operating system builds a beautiful graphical layer on top of BSD, adds an object-oriented development tool kit, and secures Jobs' eventual return to Apple. He holds onto that capital X in NeXT so he can slap it on Apple's next operating system.

1990

Windows 3.0 becomes the first Microsoft Windows with a shot at a mainstream audience, but it's still just a DOS-based operating environment and not a true operating system. Over the next few years, Microsoft introduces Windows 3.1, a bug-fix-and-enhancement release that meets with widespread approval, and the Windows for Workgroups 3.1 and 3.11 extensions, which add and improve native networking support. But it's still not a real OS.

1991

Norse OS god Linus Torvalds releases an open-source, Unix-like OS kernel that sort of bears his name. Linux is officially pronounced "leen-ooks" to reflect its Finnish origins. The Linux kernel will subsequently be combined with GNU software to create an array of open-source operating systems known as Linux distributions.

1993

Windows NT appears, and everyone assumes the NT stands for New Technology. Microsoft later denies this, but it can't deny that NT is the love child of its union with IBM, and half-brother to OS/2.

1995

Windows 95 appears, to great fanfare. It spawns a new line of Microsoft operating systems with one foot in the 32-bit world and another stuck in the mud with not-yet-obsolete 16-bit software. Who'd have thunk it that it would take six years to wave goodbye to all that? But Windows 98, 1999's 98 Second Edition, and 2000's Windows Me had to pass before Windows could move on.

To slightly less fanfare, BeOS arrives for the PowerPC platform. It carries high hopes of taking the digital media world by storm and replacing Mac OS classic. Eventually, talks with Apple flounder, and BeOS loses out to OpenStep as the foundation for the new Mac OS.

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1996

The arrival of Macintosh System 7.6 heralds a new name -- Mac OS -- and a new game called Waiting for Copland. In the end, we abandon the wait for Copland when Apple buys NeXT and adapts its operating system instead.

2001

Apple abandons its old OS core and introduces Mac OS X. The X is the Roman numeral for 10, but some think it's a nod to X Window (which is in there) and the NeXT operating system (which is also in there). Either way, X marks the spot where Apple moved away from 1984 and into a brave new world.

The Windows XP family is born. It begins with Windows XP, and increases every two years with a new -- but not necessarily a full -- release:

- **2002:** XP Service Pack 1
- **2004:** XP Service Pack 2
- **2006:** Windows Vista
- **2008:** Vista Service Pack 1 and XP Service Pack 3

... and the rest isn't history. Yet.